Melanoma Differentiation Associated Gene - 5 Promoter and Uses Thereof

Abstract of the Disclosure

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The invention provides for an isolated nucleic acid encoding Mda-5 polypeptide as shown in SEQ ID NO:1. A polypeptide having the sequence shown in SEQ ID NO:2. The present invention provides for an isolated Mda-5 promoter capable of directing transcription of a heterologous coding \sequence positioned downstream therefrom, wherein the promoter ia selected from the group consisting of: (a) a promoter comprising the nucleotide sequence shown in SEQ ID NO:3 ; (b) a promoter comprasing a nucleotide sequence functionally equivalent to the nucleotablade sequence shown in SEQ ID NO: 3; and (c) a promoter comprising a nucleotide sequence that hybridizes to a sequence complementary d_0 the promoter of (a) or Southern hybridization reaction performed under conditions. The invention provides for a host cell comprising the recombinant expression constituct as described herein. invention further provides for a method for treating cancer in a subject suffering therefrom which comprises administering to the subject an effective amount of a pharmaceutical composition which comprises a recombinant expression construct comprising: (a) a nucleic acid molecule that encodes a selected polypeptide; and (b) an Mda-5 promoter nucleotide sequence operably linked to the nucleic acid molecule of element (a), wherein the coding sequence will be transcribed and translated when \in a host cell to produce the selected polypeptide, and the Mda-5 promoter is heterologous to the coding sequence and a pharmaceutically\acceptable carrier.